Parks Canada Parcs Canada

# Audit of Business Continuity Planning

February, 2018

Office of Internal Audit and Evaluation

Report submitted to the Parks Canada Audit Committee: February 27, 2018

Approved by the Agency CEO: April 17, 2018

Canada

Her Majesty the Queen of Canada, represented by
The Chief Executive Officer of Parks Canada, 2018
Catalogue #: R62-547/2018E-PDF
ISBN: 978-0-660-25204-9

**List of Key Acronyms**

**BCP:** Business Continuity Planning

**BCPs**: Business Continuity Plans

**BIA:** Business Impact Assessment

**CEO:** Chief Executive Officer

**DDSM:** Directive on Departmental Security Management

**DSO:** Departmental Security Officer

**EMC:** Executive Management Committee

**FUS:** Field Unit Superintendent

**IM:** Information Management

**IT:** Information Technology

**MAF:** Management Accountability Framework

**OIAE:** Office of Internal Audit and Evaluation

**OSS:** Operational Security Standard

**PCA:** Parks Canada Agency

**PS:** Public Safety

**TBS:** Treasury Board Secretariat

**VP:** Vice-President

## TABLE OF CONTENTS

**1 EXECUTIVE SUMMARY ..... 5**
**2 INTRODUCTION ..... 7**
**3 PURPOSE AND SCOPE ..... 7**
**4 LEGISLATIVE AND POLICY FRAMEWORK ..... 8**
**5 STATEMENT OF ASSURANCE ..... 8**
**6 AUDIT OPINION ..... 8**
**7 OBSERVATIONS AND RECOMMENDATIONS ..... 9**
7.1 GOVERNANCE ..... 9
7.2 POLICIES, DIRECTIVES, GUIDELINES AND ROLES & RESPONSIBILITIES ..... 11
7.3 TRAINING AND LEARNING ..... 12
7.4 THE BUSINESS CONTINUITY PLANNING PROCESS ..... 13
7.5 COMMUNICATION ..... 17
**Appendix A. Audit Program Criteria and Methodology ..... 19**
**Appendix B. Business Continuity Planning Program Process ..... 21**
**Appendix C. Business Continuity Plan Criteria ..... 22**

# 1 EXECUTIVE SUMMARY

1. Business continuity planning (BCP) is a proactive planning process that ensures critical services, or products, are delivered during a disruption. These services, or products, are those that must be delivered to ensure survival, avoid causing injury, and meet legal or other obligations of an organization.[1] The planning process includes four main elements: the establishment of BCP program governance; the conduct of a business impact analysis; the development of BCPs and the arrangements, and the maintenance of BCP program readiness.[2] A business continuity plan enables critical services or products to be continually delivered to clients. Instead of focusing on resuming business after critical operations have ceased, or recovering after a disaster, a business continuity plan strives to ensure that critical operations continue to be available.[3]

2. The 2007 Emergency Management Act established emergency management as a core responsibility of the Government of Canada and a collective responsibility of all federal government institutions. Emergency management strengthens the government's capacity to ensure the safety and security of Canadians through the management of all-hazard emergencies. The all-hazards approach to emergency management, encompasses four interdependent, but integrated functions: mitigation/prevention, preparedness, response and recovery.[4]

3. A BCP Program complements emergency preparedness and is mandated by legislation, policies, directives, and standards (e.g. fire and building evacuation plans).[5] Based on the 2009 Policy on Government Security, the continued delivery of government services must be assured through baseline security requirements, business continuity planning - including Information Management (IM) and Information Technology (IT) continuity planning - and continuous risk management.

4. The Parks Canada Agency's (The Agency's) BCP Program was established in late 2008 with the approval of the PCA BCP Program Directive which was followed by defining the Agency's six critical services: public safety services, forest fire management, flood control, highway management, townsite management and law enforcement. The BCP Program (The Program) spans the entire Agency across Canada and includes the 7 directorates, 33 field units, and the Chief Executive Officer's (CEO) Office.[6]

5. The Program is managed by the Departmental Security Officer (DSO) within the Strategic Planning and Corporate Services (SPCP) Branch. The DSO explained that at the time of the audit, one resource dedicated a small portion of their work load to the management of the Program. This resource was functionally supported by 45 local BCP coordinators[7] assigned across the Agency's business units who allocated time to BCP activities in addition to their regular responsibilities.[8]

6. The purpose of this audit was to provide assurance to senior management that the management control framework for BCP is in place, and that practices and procedures are compliant with the

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[1] Public Safety Canada A Guide to Business Continuity Planning (2003).

[2] Treasury Board Operational Security Standard - Business Continuity Planning (BCP) Program (2004).

[3] Supra see note 1.

[4] Public Safety Canada Emergency Management Planning (2016).

[5] Supra see note 2.

[6] Agency satellite offices are included as part of their functional Directorate or Field Unit.

[7] At the time of the audit there were 45 local BCP coordinator roles identified across the Agency

[8] For this audit the term business unit was used to describe a field unit, a directorate or the CEO's office.

Emergency Management Act and the BCP policy suite, which includes all applicable Treasury Board (TB) and the Agency policies.

7. The audit methodology included an examination of the relevant documentation, interviews, a survey and a file review.

8. The audit was conducted in accordance with the standards set out in the TB Policy on Internal Audit. Sufficient audit work was performed and the necessary evidence was gathered to support the conclusions contained in this report. The audit was conducted between July 2016 and November 2017.

**Key findings**

9. Overall there are many elements of the Program in place; the governance framework is defined; the BCP directive is approved and available for use; roles and responsibilities are defined for those with BCP responsibilities. The Agency completed the business impact assessment that identified its six critical services and business units developed BCPs. However, the Program requires attention in several areas to ensure the Agency will be able to deliver its critical services in the event they were threatened or disrupted. These areas include:

    - renewing a commitment to governance and management of the Program;
    - updating the Agency's internal documentation to align with Treasury Board requirements;
    - training requirements for employees with BCP responsibilities are not defined;
    - BCPs are rarely tested, reviewed and updated;
    - Information Technology does not have a BCP in place for critical information technology (IT) services, and no formal agreement with Shared Services Canada exists; and
    - there is minimal BCP-related communication between the Office of the DSO and the business units across the Agency.

**Recommendations**

10. There are five recommendations addressed to the Vice-President (VP) of Strategic Policy and Investment Directorate.

    1. Re-establish senior management oversight over the BCP Program that includes regular monitoring and reporting that provides information for decision making including the results of periodic testing of business continuity plans.
    2. Update the Parks Canada Agency BCP Program Directive to align with the Treasury Board's OSS-BCP requirements related to approvals of BIAs and BCPs.
    3. Establish a training program for employees with BCP-related responsibilities.
    4. Establish an IT business continuity plan for the Agency's two critical IT services, as well as ensure that the Office of the Chief Information Officer is involved in validating the information technology requirements of individual BCPs.
    5. Establish effective mechanisms that share BCP-related information between appropriate employees within the Agency to ensure ongoing coordination and communication between the DSO and the business units.

## 2 INTRODUCTION

11. Business continuity planning (BCP) is a proactive planning process that endeavors to ensure critical services continue to be delivered during a disruption. These services, or products, are those that must be delivered to ensure survival, avoid causing injury, and meet legal or other obligations of an organization.[9] The planning process includes four main elements: the establishment of BCP program governance; the conduct of a business impact analysis; the development of BCPs and the arrangements, and the maintenance of BCP program readiness.[10] A business continuity plan enables critical services or products to be continually delivered to clients. Instead of focusing on resuming business after critical operations have ceased, or recovering after a disaster, a business continuity plan strives to ensure that critical operations continue to be available.[11]

12. The 2007 Emergency Management Act established emergency management as a core responsibility of the Government of Canada and a collective responsibility of all federal government institutions. Emergency Management strengthens the government's capacity to ensure the safety and security of Canadians through the management of all-hazard emergencies. The all-hazards approach to emergency management, encompasses four interdependent, but integrated functions: mitigation/prevention, preparedness, response and recovery.

13. A BCP Program complements emergency preparedness and is mandated by legislation, or government policies, directives, and standards (e.g. fire and building evacuation plans).[12] Based on the 2009 Policy on Government Security, the continued delivery of government services must be assured through baseline security requirements, business continuity planning - including Information Management (IM) and Information Technology (IT) continuity planning - and continuous risk management.

## 3 PURPOSE AND SCOPE

14. The 2016-2017 to 2018-2019 Parks Canada Multi-Year Internal Audit Plan included the audit of the BCP Program. The purpose of this audit was to provide senior management with assurance that there was a management control framework in place for the Program and that it was aligned with the legal obligation of the Agency and in accordance with the requirements of government policies. The audit focussed on the status of the Program as of July 2016. The scope included responsibilities for both the National Office and Field Units.

15. The audit criteria were selected on the basis of the risks identified in the four elements of the Program:

    1. Establishment of BCP Governance;
    2. Completion of Business Impact Analysis;
    3. Development of BCPs and arrangements for business continuity; and
    4. Maintenance of BCP Program Readiness.

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[9] **Supra see note 1. OR Public Safety Canada** A Guide to Business Continuity Planning **(2003).**

[10] **Supra see note 2. OR Treasury Board Secretariat** Operational Security Standard - Business Continuity Planning (BCP) Program **(2004).**

[11] **Supra see note 1. OR Public Safety Canada** A Guide to Business Continuity Planning **(2003).**

[12] **Supra see note 2. OR Treasury Board Secretariat** Operational Security Standard - Business Continuity Planning (BCP) Program **(2004).**

The audit methodology and criteria can be found in **Appendix A.** The audit was not intended to provide an opinion on the efficiency of the existing BCPs.

## 4 LEGISLATIVE AND POLICY FRAMEWORK

16. The following sources were used to develop the audit criteria employed during the audit:

- Treasury Board Policy on Government Security;
- Treasury Board Directive on Departmental Security Management;
- Treasury Board Operational Security Standard - Business Continuity Planning Program; and
- Parks Canada Agency Business Continuity Planning Program Directive.

## 5 STATEMENT OF ASSURANCE

17. This audit complies with the Treasury Board Policy on Internal Audit and the Institute of Internal Auditors' International Standards for the Professional Practice of Internal Auditing. The audit evidence was gathered in compliance with procedures and practices that meet these standards, as supported by the results of the quality assurance and improvement program.

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Brian Evans
Chief Audit and Evaluation Executive, Parks Canada

## 6 AUDIT OPINION

18. The Agency has key elements of a comprehensive BCP Program in place including defining the governance framework, establishing an Agency BCP directive, and defining the roles and responsibilities for key players. A Business Impact Assessment was completed that helped identify the six critical services the Agency delivers. BCPs were developed across the Agency in 2010, however more work needs to be done to ensure the Program is up to date and that BCPs contain sufficient detail that will allow employees to execute the plans in the event that the provision of critical services is threatened, or disrupted. Oversight, through governance and management of the Program needs to be strengthened. BCP testing should be more frequent to drive improvements and updates to the plans. The Agency should strengthen the commitment to employees with BCP-related responsibilities by defining training requirements and improving the communication channel between the Office of the DSO and the business units across the Agency.

# 7 OBSERVATIONS AND RECOMMENDATIONS

## 7.1 GOVERNANCE

Criteria:

- Existence of a governance structure that fulfils the requirement to lead and oversee, report regularly, and establish an agency process;
- Monitoring and reporting activities are performed according to requirements;

**Governance of the BCP Program**

19. A governance structure for the Business Continuity Planning (BCP) Program provides the leadership and oversight required to ensure the program is implemented and maintained as expected. This includes that the Program's progress in achieving priorities across the Agency is regular reported upon.

20. The TB Directive on Departmental Security Management (DDSM), the TB Operational Security Standard - Business Continuity Planning (OSS-BCP), and the PCA BCP Program Directive each define the requirements for the existence of a governance structure that fulfills the obligation to lead and oversee the development, implementation and maintenance of the BCP program.

21. Within the Agency, the Vice-President (VP) of Strategic Policy and Investment (SPI) Directorate is expected to provide leadership and promote compliance of BCP requirements. Within SPI, the Departmental Security Officer (DSO) is ultimately responsible to oversee the BCP program, supported by a national BCP coordinator who manages the Program at the Agency.

22. The DSO and the national BCP coordinator must actively lead and oversee the development, implementation and maintenance of the BCP Program for the Agency, including the development and maintenance of program directives, guidelines, templates and tools; management of the Agency's BCP activities; provision of advice and guidance; regular training and support; monitoring and reporting on the program status, and the establishment of a strategy to communicate BCP activities to employees and stakeholders.

23. The governance structure that is established is aligned with requirements set out in the TB OSS-BCP as well as the Agency's BCP Program Directive.

**Monitoring and Reporting**

24. Program monitoring and reporting are essential components of program governance, they provide information on the health and status of the BCP program that will help inform decision-making at all levels of management.

25. The PCA BCP Program Directive identifies that the VP SPI must report annually on the implementation and maintenance of the BCP program. The Office of the DSO, in collaboration with each business unit, is expected to monitor performance, identify best practices, record approvals and communicate compliance issues accordingly. The office of the DSO is required to

submit annual reports to senior management on the status of the BCP program. The directive does not define to which governance body or member of senior management these reports should be presented to, further, at the time of the audit there has been no annual reporting on the status of the Program.

26. At the Agency, the 2012-2017 Departmental Security Plan identified that a schedule for reviewing and revising BCPs should be established and the DSO would support this process. There was no reporting against these priorities that demonstrated that a schedule was established or that BCPs were renewed, nor was there any evidence that there was periodic oversight or decision-making related to BCPs.

27. Though general reporting and monitoring requirements were defined in the PCA BCP Program Directive, there was no reporting performed on the Program. The Directive could be improved by including more detail that defines what key indicators should be reported upon and to whom. This added detail will help improve overall governance of the Program by determining who should receive the information, and at what frequency, for oversight and decision making.

28. The forest fires and flooding in 2017 in different regions of Canada are a reminder that a renewed leadership and oversight of the Program is required to re-establish priorities, objectives and regularly report on their progress in order for the Agency to be prepared to continue delivering its critical services.

| **Recommendation 1:** | |
|---|---|
| The VP of Strategic Policy and Investment Directorate should re-establish senior management oversight over the BCP Program that includes regular monitoring and reporting that provides information for decision making including the results of periodic testing of business continuity plans. | |
| **Management Response:**<br>Agree. The Vice-President, Strategic Policy and Investment will re-establish the BCP Program governance structure to ensure senior management oversight. In addition, a monitoring and reporting process commensurate with available resources will be developed and communicated. | **Completion Date:**<br>December 2018 |

## 7.2 POLICIES, DIRECTIVES, GUIDELINES AND ROLES & RESPONSIBILITIES

- Directives, policies, standards and guidelines are available, clear, communicated and applied; and
- Roles and responsibilities are identified, documented and communicated.

29. The policies, directives and guidelines related to BCP should be in line with TB requirements while outlining the expectations of the organization and providing procedural direction to those performing the task.

30. The national BCP coordinator is required to develop and maintain BCP directives, guidelines, templates and tools for the Agency and have them approved by senior departmental managers, or a senior management committee.

31. The national BCP coordinator developed the PCA BCP Program Directive. This Directive was revised and approved in February 2016 and posted to the Agency's Intranet. The Directive provides direction at an Agency-wide level and defines the elements of the BCP planning process:

- the establishment of governance;
- the business impact analysis;
- the development of plans and the arrangements, as well as the maintenance, of program readiness; and
- the outline of roles and responsibilities at the Agency level in detail from the VP of SPI to the local BCP coordinators.

32. The Directive is mostly aligned with the requirements of the TB OSS-BCP, however it does not identify who approves Business Impact Assessments and Business Continuity Plans. In addition to the Directive, the Intranet site for the Office of the DSO has a list of BCP coordinators, links to BCP-related legislation, and training options.

33. At the time of the audit, the national BCP coordinator had drafted a business impact assessment and business continuity plan instruction manual that would provide additional guidance. This manual will focus on how to complete the Agency's BCP-related templates.

34. At the onset of the audit, the national BCP coordinator's responsibilities were split between the BCP Program and several other security-related activities. The DSO explained that previously, only a small portion of the coordinators' work load was assigned to managing the Program. However, by December 2017, the DSO reported that a dedicated resource manages the Program. Currently, the national BCP coordinator has no direct reports however the DSO is reviewing the resources that are necessary to support the function.

35. Across the Agency, local BCP coordinators are assigned within business units. Across the Agency, there are 45 local BCP coordinators identified at the Agency that functionally support the Program. In addition to their regular duties, local BCP coordinators are expected to lead the planning of BCPs, develop and maintain the Program within their respective areas of responsibility, and report

on the Program's status. Though local BCP coordinators identified that they were not aware of an obligation to report on the progress of their BCPs to the national BCP coordinator. Across the Agency, the Field Unit Superintendents are responsible for the activation and deactivation of BCPs as required to ensure minimal or no interruption to the availability of critical services and assets.

36. The PCA BCP Program Directive is mostly aligned with TB requirements, it also sets out the roles and responsibilities of the various players involved in the BCP Program. However it does not define the approval process for BIAs and BCPs, and could be further strengthened by providing greater detail on monitoring and reporting requirements.

| **Recommendation 2:** | |
|---|---|
| The VP of Strategic Policy and Investment Directorate should update the Parks Canada Agency BCP Program Directive to align with the Treasury Board's OSS-BCP requirements related to the approval of BIAs and BCPs. | |
| **Management Response:**<br>Agree. The Office of the DSO will review and revise the Parks Canada Agency BCP Program Directive to clarify roles and responsibilities of all individuals involved in the BCP process. | **Completion Date:**<br>October 2018 |

### 7.3 TRAINING AND LEARNING

Criteria: Relevant training is provided to individuals involved in the Business Continuing Planning

37. Employee training is necessary to achieve consistency in process and policy adherence, and improves the likelihood of achieving objectives. Employees involved in business continuity planning are expected to receive appropriate training as laid out in the requirements of the TB OSS-BCP Program, though it is not prescriptive of what training is to be provided.

38. At the Agency, the PCA Program Directive establishes that the responsibility for training is shared between the national BCP coordinator, the local BCP coordinators and Field Unit Superintendents. Specifically, the national BCP coordinator is responsible for providing regular training to the local BCP coordinators. Once trained, the local BCP coordinators are expected to provide regular training to the local BCP team members. Field Unit Superintendents are required to ensure that local BCP coordinators and supporting team members have the resources and training to implement the Directive and Program related requirements. Similar to the OSS-BCP, the Directive does not specify what training must be conducted, and accordingly there is no mandatory training course for employees.

39. The Agency's Intranet has a list of classroom and online BCP-related courses offered outside of the federal government. At the time of the audit, the DSO and both the current, and previous, national BCP coordinators received BCP training prior to joining the Agency. Once at the Agency,

these employees gained additional knowledge through external intergovernmental working group meetings or by on-the-job knowledge transfer.

40. The audit team performed a survey of local BCP coordinators[13] and found that only 12 of 50 respondents had received BCP training. Of these 12 employees: none had taken an external training course; 4 had received training in the form of an information session provided by Agency staff; 7 received reading materials as a form of training; and 1 did not respond to the question. There is currently no internally provided BCP training courses.

41. Since January 2015, 20 of the 45 local BCP coordinators were new to the role and had not yet taken BCP training. Without receiving training themselves, the local BCP coordinators could not provide training to other employees that may support the BCP program.

42. A lack of appropriate training increases the risk that the Agency's employees will not be adequately prepared to manage a threat or disruption to its critical services. Providing training to employees with BCP-related responsibilities will increase the Agency's ability to continually provide, or bring back online, its critical services within an acceptable time frame.

| **Recommendation 3:** | |
|---|---|
| The VP of Strategic Policy and Investment Directorate should establish a training program for employees with BCP-related responsibilities. | |
| **Management Response:** | **Completion Date:** |
| Agree. The Office of the DSO will undertake a review of training requirements for all employees with BCP responsibilities and develop, in collaboration with the Operations Directorate and the Human Resources Directorate, a BCP training program. | April 2019 |

## 7.4 THE BUSINESS CONTINUITY PLANNING PROCESS

Criteria:
- The impacts of disruptions on the services delivered by the Agency were assessed and critical services were identified and prioritized;
- BCPs and recovery strategies are developed and arrangements made for all critical services;
- BCPs are tested to ensure efficient and effective response and recovery; and
- Updates on BCPs are done regularly or based on test results or environment changes.

43. The Agency began establishing a BCP program in 2008 with the approval of the PCA BCP Program Directive. The Program spans the entire Agency across Canada and includes 7 directorates, 33 field units, and the Chief Executive Officer's Office. Each of these business units must have a plan for the critical services it delivers.[14] Depending on the business unit's

[13] This includes counting of the assigned alternates for local BCP coordinators.

[14] There may be cases where no critical services are offered by a business unit.

geographical configuration, the same critical service might be delivered at multiple sites that are far removed from each other and have their own particularities. As a result the business units tended to have multiple BCPs.

44. For the purpose of this audit, a judgmental sample containing 89 BCPs from 14 business units was chosen and analysed through a documentation review (**Table 1**). The BCP from Prince Edward Island was not included as the plan did not relate to critical services, which reduced the sample to 88.

| Table 1: Field Units Sampled | Number of BCPs Sampled |
|---|---|
| **Mount Revelstoke and Glacier** | 11 |
| **Jasper** | 10 |
| **National Office** | 10 |
| **Waterton Lakes/Bar U** | 10 |
| **Cape Breton** | 9 |
| **Lake Louise, Yoho Kootenay** | 9 |
| **Banff** | 7 |
| **Western Newfoundland and Labrador** | 7 |
| **Gaspésie** | 5 |
| **Mainland Nova Scotia** | 4 |
| **Coastal BC** | 3 |
| **Western Quebec** | 2 |
| **Atlantic Service Centre**[15] | 1 |
| **Prince Edward Island** | 1 |
| **Total** | **89** |

**Business Impact Analysis**

45. The Agency conducted an organizational level business impact analysis and identified critical services in October 2009. From this BIA, the following six critical services were approved by Public Safety (PS):

    1. Public Safety Services: Search and rescue, avalanche control and telecommunication systems.
    2. Forest Fire Management: Monitoring and suppression.
    3. Flood Control: Water levels of waterways are managed to meet legal and/or operational obligations.
    4. Highway Management: Maintain the condition of through highways so that they remain open to traffic.
    5. Townsite Management: Provision of water, sewer, fire or ambulance services to a townsite.
    6. Law Enforcement: Provision of enforcement services for the Canada National Parks Act, Saguenay St. Laurent Marine Park Act, the Canada Marine Conservation Areas Act and other related legislation in support of the Parks Canada mandate.

    The Agency has not updated this analysis since 2009.

46. At the business unit level, a BIA based on OSS-BCP requirements was conducted in 2010 to determine which, if any, of these critical services was being provided. All 14 business units covered by the sample had conducted a BIA, however only seven of the BIAs have been reviewed and updated in the last two years. The BIAs must be maintained in a timely manner in order for them to be relevant should an event occur that would disrupt services. **This issue will be addressed as part of monitoring and reporting within Recommendation #1.**

[15] Due to organizational restructuring this unit no longer exists as a separate entity.

**Business Continuity Plans and supporting arrangements**

47. Once a BIA is completed, the BCP must include a recovery strategy for each critical service. A number of potential recovery strategies are generated from which a preferred strategy will be selected and included in the BCP.

48. Additionally, plans must include:

    - Response and recovery teams, including the membership and contact information.
    - Roles, responsibilities and tasks of the teams including internal and external stakeholders.
    - Resources and procedures for recovery.
    - Communications strategies.

49. The OSS-BCP also requires that necessary logistical arrangements with partners and stakeholders are made to ensure that plans can be implemented in the event of a disruption. Finally, with plans developed and approved, a permanent maintenance cycle must be established. The IT and BCP functions are expected to collaborate throughout the process.

50. The strategies included in all 88 BCPs were aligned with BIAs. However, the process of selecting a strategy was not documented as required by the OSS-BCP.

51. All 88 samples included the membership of the BCP team members, their individual roles and responsibilities and their contact information. These BCPs also included recovery procedures, resource requirements (employees and assets) and information related to communication. Details supporting these observations for each business unit are presented in **Appendix C**.

52. As part of the BCP, listings of supporting arrangements with external partners and stakeholders and their contact information were also required. Although arrangements were identified, sampled plans did not include detailed information that could be required if the plan was put into action. An example of the information that is required could include the after-hours contact information of key individuals, the physical location of necessary equipment or a business partner's obligation to ensure its availability at all times. Without this information, or if the information is inaccurate, the deployment of a plan might be delayed or problematic in case of an incident. The draft version of the Agency's BCP instruction manual includes guidance that requires all arrangements be documented within the BCP. **This issue will be addressed as part of monitoring and reporting within Recommendation #1.**

**Business Continuity Plan Readiness**

53. Once the BCPs are finalized, a maintenance cycle must be established. This cycle includes reviewing BCPs on an ongoing basis, including after substantial changes to the environment or to the organization, and that after a testing exercise, the findings are incorporated into a revision of the BCP.

54. Annually, it was expected that each business unit would review their BCPs to ensure the information found in the plans was current, and test at least one of the plans within each business unit. During the last two years, 6 business units had completed a review of their BCPs, accounting for 56 plans out of our sample of 88. However, only two business units in the sample conducted

testing exercises of two BCPs. In addition to updating a plan, a testing exercise may help identify if more training is required that would strengthen the level of preparedness for an actual event.

55. In January 2017, the Waterton Lakes National Park Field Unit, in Southern Alberta, performed a table top exercise, where employees discussed a simulated fire emergency that used details from their BCP. Later that year, in the summer of 2017, the Kenow forest fire at Waterton Lakes National Park covering over 38,100 hectares caused severe damage to the region, affected critical services and ultimately burned down the Agency's visitor centre. The local BCP coordinators identified that the table top exercise was helpful in the successes the Field Unit had in restoring services. This exercise was good example of why the testing and review cycle of the BCP process should be carried out.

56. Without periodically reviewing, testing and updating the BCPs, the Agency may not be able to carry out the plans as intended or apply lessons learned from the exercises which could have a negative impact on providing critical services continuously.

57. The Agency's BCPs were developed and based on BIAs as set out in TB policies, however more frequent testing and reviewing of BCPs would strengthen the Agency's preparedness in the event of a disruption. **This issue will be addressed as part of monitoring and reporting within Recommendation #1.**

**Information Technology and Information Management Continuity Planning**

58. Separate from the BCPs established across the Agency, an IT BCP, that includes Information Management, must cover plans and arrangements to ensure minimal or no interruption to the availability of critical IT services and assets. Both the TB's OSS-BCP and the PCA's BCP Program Directive call for comprehensive IT continuity plans and collaboration between IT and BCP functions. The expectation is that collaboration would manifest itself through discussions of IT requirements, validation of plans involving shared IT infrastructure, and joint participation in testing exercises.

59. All 88 BCPs included in the sample addressed IT restoration in their recovery strategies as it related to the critical service being provided, however there was no evidence of collaboration taking place, and the limited testing exercises across the sample demonstrated that the IT continuity plans were not validated.

60. From interviews and work conducted during the audit a gap was highlighted related to IT continuity planning. Since 2012, Shared Services Canada (SSC) has been responsible for the Agency's IT infrastructure. There is no formal agreement that defines the responsibilities relating to business continuity nor a service level agreement between the two organizations. The TB OSS-BCP requires that where departments share in the delivery of a critical service, arrangements must be made to ensure that the plans of the sharing departments are aligned.

61. The Agency has identified two critical IT services: Infrastructure Computer Aided Dispatch (I/CAD), an emergency call center for the Agency that operates out of Banff and Jasper; and AvalX, a public avalanche forecasting system. For both of these services we expected that a BCP would be in place.

62. Although there was no formal BCP developed for these two critical IT services, a plan was created for I/CAD in the event of network loss between the two call centers that included the technical

steps required to allow operations to continue. However, the plan does not include what to do if there are any SSC owned issues such as network connectivity.

63. As part of the Agency's Sustainability Plan for IT Critical Applications both of these services were included in a SSC list of critical applications. As a result, SSC endeavors to limit downtime to less than four hours. All other BCP IT issues that arise are addressed through the Agency's IT service desk.

64. At the current level of BCP IT readiness and the absence of formal agreements with SSC, the Agency is at risk of being unable to maintain, or re-establish in a timely manner, the IT services necessary to support a BCP should IT infrastructure fail during an event.

| **Recommendation 4:** | |
|---|---|
| The Vice-President of Strategic Policy and Investment Directorate should establish an Information Technology (IT) business continuity plan for the Agency's two critical IT services, as well as ensure that the Office of the Chief Information Officer is involved in validating the IT requirements of individual BCPs. | |
| **Management Response:** | **Completion Date:** |
| Agree. The Office of the Chief Information Officer (OCIO) will complete a BCP for the Agency's two critical IT services: AvalX and Computer Aided Dispatch. As part of revising the BCP directive, the OCIO will define its BCP-specific roles and responsibilities, including how it is consulted and engaged on individual BCPs. | December 2018 |

## 7.5 COMMUNICATION

Criteria: The DSO provides parks and sites with timely and relevant support for BCP.

65. Timely and effective communication is an essential element of good program management and is an important element of a BCP Program. According to the TB' OSS-BCP senior management must provide strategic direction and communication. The national BCP coordinator is responsible for:

- developing a strategy to communicate BCP activities to employees and stakeholders; and
- establishing working groups and defining their roles and responsibilities.

66. Within the Agency, the promotion of BCP program awareness is the responsibility of the VP of SPI and the DSO. The only evidence of promotion or awareness from senior management was a memo in January 2015 addressed to Field Unit Superintendent (FUS) and VPs requesting that they update their BCPs.

67. The national BCP coordinator is responsible for managing the Program, providing advice and guidance, and promoting awareness of the BCP policy suite and related tools. From observations and interviews, the national BCP coordinator provided advice and guidance reactively, when a

request is made from a business unit. At the time of the audit, there was no formal working group linking the national BCP coordinator with local BCP coordinators across the Agency.

68. Based on the survey that was performed, the majority of local BCP coordinators knew where to seek out advice and guidance but noted a lack of active communication with the national BCP coordinator. The local BCP coordinators noted that they received more information from other departments or central agencies about potential risks or threats that may require activation of a BCP.

69. The last documented call-out to business units was performed during the period of February-March 2015 with local BCP coordinators. The call-out discussed the coordinators' BCP-related experience, authorities, process, program roles, and status of BCP readiness at the business units. As noted earlier, since January 2015, 20 of the 45 local BCP coordinators were new to the role meaning that many of the employees contacted at the time of the call-out were no longer in their BCP coordinator role. Additionally, within the Office of the DSO there has been three different national BCP coordinators during the period of 2015-2017.

70. The PCA BCP Program Directive identifies that if a FUS, VP, or Chief activates a plan in their business unit they are expected to notify the national BCP coordinator. Subsequently, a direct line of communication is maintained that provides support to both the local BCP coordinators and the DSO. During the audit period the national BCP coordinator had not been notified of a BCP activation at the Agency.

71. There is an opportunity to improve the communication of advice, guidance and awareness of the Program to the appropriate employees within the Agency to ensure ongoing communication and coordination between the Office of the DSO and the business units.

| **Recommendation 5:** | |
|---|---|
| The VP of Strategic Policy and Investment Directorate should establish effective mechanisms that share BCP-related communication to the appropriate employees within the Agency to ensure ongoing coordination and communication between the Office of the DSO and the business units. | |
| **Management Response:** | **Completion Date:** |
| Agree. The DSO will develop a communication strategy and establish a community of practice to ensure BCP-related information is shared with employees who have BCP roles and responsibilities. | March 2018 |

## Appendix A. Audit Program Criteria and Methodology

The following criteria were selected based on the audit work completed in the planning phase:

| Lines of Enquiry | Audit Criteria |
|---|---|
| 1: Governance structure in place for BCP Program is in compliance with Public Safety Canada, PCA and TBS policies, directives and guidelines. | **1.1** Existence of a governance structure that fulfils the requirement to lead and oversee, report regularly, establish an agency process. |
| | **1.2** Roles and responsibilities are identified, documented and communicated (DSO and business units) |
| | **1.3** Directives, policies, standards and guidelines are available, clear, communicated and applied. |
| | **1.4** Relevant training is provided to individuals involved in the BCP. |
| | **1.5** The DSO provide parks and sites with timely and relevant support for BCP. |
| | **1.6** Monitoring and reporting activities done according to requirements. |
| **2:** The business impact analysis is conducted to assess the impacts of disruptions on the Agency's operations and to identify and prioritize critical services. | **2.1** The impacts of disruptions on the services delivered by the Agency were assessed and critical services were identified and prioritized. |
| **3:** BCPs and arrangements are developed based on business impact analysis. | **3.1** BCPs and recovery strategies are developed and arrangements are made for all critical services. |
| **4:** A maintenance cycle is established for BCPs. | **4.1** BCPs are tested to ensure efficient and effective response and recovery. |
| | **4.2** Updates to BCP plans are done on an annual basis, based on test results, or as a result of environment changes. |

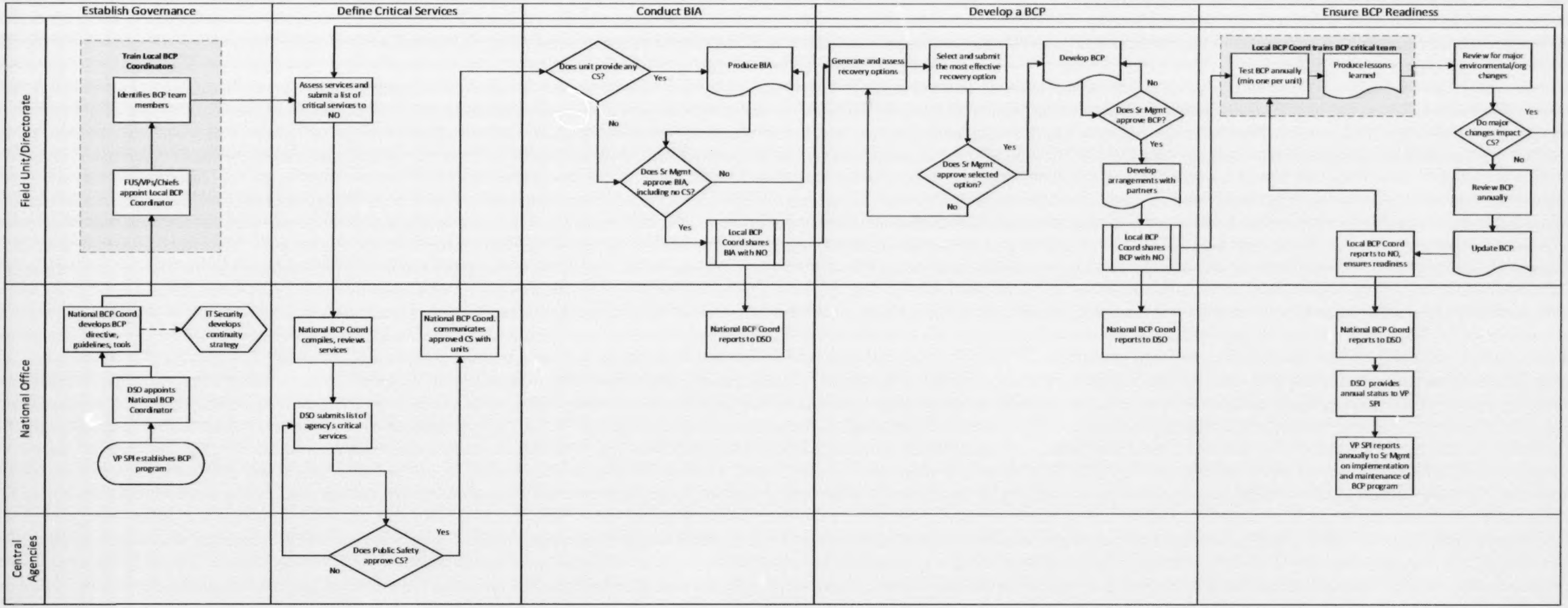
The methodology used as part of each phase of the audit:

1. Planning
   - Review of policies, directives, procedures and other relevant documents;
   - Development of the audit plan and program;
   - Development of tools and methodology used during the planning phase;
   - Approval of the audit program by the Chief Audit and Evaluation Executive.

2. Examination
   - A combination of interviews with key personnel within the National Office and Field Units, document review including assessing a sample of BCP plans.
   - Validation of our observations with the DSO.

3. REPORTING
   - Preparation and revision of a draft report by internal audit manager;
   - Revision of the report by the representative of the audited entity;
   - Final updated report, including management response and action plan;
   - Submission of the final report to the Departmental Audit Committee;
   - Approval by the Agency CEO;
   - Publication of the report.

## Appendix B. Business Continuity Planning Program Process


Establish Governance
Define Critical Services
Conduct BIA
Develop a BCP
Ensure BCP Readiness
Field Unit/Directorate
National Office
Central Agencies
Train Local BCP Coordinators
Identifies BCP team members
FUS/VPs/Chiefs appoint local BCP Coordinator
Assess services and submit a list of critical services to NO
Does unit provide any CS?
Yes
No
Produce BIA
Does Sr Mgmt approve BIA, including no CS?
No
Yes
Local BCP Coord shares BIA with NO
National BCP Coord reports to DSO
Generate and assess recovery options
Select and submit the most effective recovery option
Does Sr Mgmt approve selected option?
Yes
No
Develop BCP
Does Sr Mgmt approve BCP?
No
Yes
Develop arrangements with partners
Local BCP Coord shares BCP with NO
National BCP Coord reports to DSO
Local BCP Coord trains BCP critical team
Test BCP annually (min one per unit)
Produce lessons learned
Review for major environmental/org changes
Do major changes impact CS?
Yes
No
Review BCP annually
Update BCP
Local BCP Coord reports to NO, ensures readiness
National BCP Coord reports to DSO
DSO provides annual status to VP SPI
VP SPI reports annually to Sr Mgmt on implementation and maintenance of BCP program
National BCP Coord develops BCP directive, guidelines, tools
IT Security develops continuity strategy
DSO appoints National BCP Coordinator
VP SPI establishes BCP program
National BCP Coord compiles, reviews services
DSO submits list of agency's critical services
Does Public Safety approve CS?
Yes
No
National BCP Coord. communicates approved CS with units

## Appendix C. Business Continuity Plan Criteria

| Field Unit | Mount Revelstoke and Glacier | Jasper | National Office | Waterton Lakes/Bar U | Cape Breton | Lake Louise Yoho Kootenay | Banff | Western Newfoundland and Labrador | Gaspésie | Mainland Nova Scotia | Coastal BC | De l'Ouest du Quebec | Atlantic Service Centre | Prince Edward Island | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of BCPs | 11 | 10 | 10 | 10 | 9 | 9 | 7 | 7 | 5 | 4 | 3 | 2 | 1 | 1 | 89 |
| Documented assessment of recovery options | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 |
| Recovery options for each critical service are listed in the BCP | 11 | 10 | 10 | 10 | 9 | 9 | 7 | 7 | 5 | 4 | 3 | 2 | 1 | n/a | 88 |
| Response and recovery teams, including the membership and contact information | 11 | 10 | 10 | 10 | 9 | 9 | 7 | 7 | 5 | 4 | 3 | 2 | 1 | n/a | 88 |
| Roles, responsibilities and tasks of the teams including internal and external stakeholders | 11 | 10 | 10 | 10 | 9 | 9 | 7 | 7 | 5 | 4 | 3 | 2 | 1 | n/a | 88 |
| Resources and procedures for recovery | 11 | 10 | 10 | 10 | 9 | 9 | 7 | 7 | 5 | 4 | 3 | 2 | 1 | n/a | 88 |
| Arrangements with partners are referred to when units considered it to be necessary | 11 | 10 | 10 | 10 | 9 | 9 | 7 | 7 | 5 | 4 | 3 | 2 | 1 | n/a | 88 |
| At least one BCP tested annually | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | n/a | 2 |
| BCP reviewed annually | 11 | 10 | 0 | 10 | 9 | 9 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 56 |